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THE ORE BOATS passing—where are they going, what are they carrying? The pattern of this traffic and its importance is revealed in the article by *Dr. Albert G. Ballert*, Chief of Research for Michigan's Department of Economic Development, and formerly Assistant Professor of Geography at the University of California at Los Angeles. His article originally appeared in the April issue of *Economic Geography*.

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Profits are essential to the smooth operation of our complex economic machine.

Raising Our Standard of Living

By Ralph E. Flanders

THE task of raising the general standard of living of the inhabitants of this country is an undertaking which we have successfully pursued generation after generation, century after century, since our country was founded. From the first meager support gained from the bleak Atlantic seaboard by infinite toil and tribulation our history has seen continued improvement in the living standards of each successive generation.

The first improvement came after the clearing of the soil and the building of the first rude shelters. More time was available to till the soil and to plant more crops. In place of starvation and near-starvation, food and plenty became possible. With the introduction of sheep and the making of spinning wheels and looms (both very simple mechanisms) warm clothing became a blessing which could be enjoyed by every family with the necessary willingness to work and to acquire the needed skills.

The Cash Crop

From this point on, the improvement has been one of *technology*, whether in the fields of production, transportation, or communication. Along with this went more and more minute subdivision of work applied to farming as well as to industry and trade. From raising the foods necessary for family subsistance, the farmer began to raise an additional amount which served as a cash crop, the sale of which provided money with which he might buy things he formerly made.

When I was a small child the cash crop in Vermont was wool and sheep for breeding. The spinning wheel and the loom were going out, though I remember seeing my grandmother and her sister at work on these ancient devices. In place of making the clothes at home, the money from the cash crop furnished the means for purchasing the cloth at the store. Clothes were either made from this cloth at home or more often put into the hands of the village dressmaker or a travelling tailor for finishing.

While subsistence from the soil still remains, the cash crop has over-shadowed everything. In my part of the country the cash crop is principally fluid milk, though we have poultry, eggs, potatoes, and apples also. The kitchen garden is a minor element in the agricultural economy. The big thing is the cash crop and the family supplies are purchased from the store or the mail order house with its proceeds.

This is the way the picture looks in an agricultural community, but what this does not show is the infinite elaboration of all the industrial and commercial processes which bring the cash crop to the consumer, return a proportion of his purchase price to the farmer-producer, and again bring to the farmer's store or mail order house the innumerable variety of goods which are at his disposal if he has the cash to pay for them.

The Production Process

There is involved here a process of gathering goods from every continent of the earth, of transporting them by sea, by land, and by air; of bringing them together as raw materials, semi-processed and finished parts, to be assembled into a completed whole and then distributed through elaborate advertising, selling, transportation, and financing into the ultimate hands of our farmer-consumer.

Perhaps the best and most familiar example of this complicated process is to be found in the farmer's automobile. The steel is made from iron ore from the Mesabi Range or possibly from Spain, Cuba, Brazil, or Chile. It is alloyed with metals from Russia, India, or Madagascar. The tires, if not synthetic, are made from the juice of the rubber trees in the East Indies, the Amazon, or Liberia. The stuffing in the cushions is made from a curled fiber gathered by Mexican peasants. And so the story goes.

Productive Efficiency

The immense complication of this process is beyond the complete comprehension of any one person. It would seem to be so complicated that it would be too expensive to function in a practical way. The wonder is that our farmer can afford to buy his automobile with the proceeds of his simple agricultural operation of raising fluid milk for the city market. That has its complications too, and no one unfamiliar with the problems of scientific feeding, breeding, and market pricing should look with contempt on the technical aspects of agriculture. But they are limited and comprehensible as compared with the problems of making and distributing the automobile, simply because the latter combines such a multiplicity of elements.

The whole process becomes practical because of the increasing technical perfection of the process of production and distribution. Economical transportation has been produced by the technical refinement of the railroad, the ocean vessel, and the highway truck. Every element in the mechanical process of production makes its contribution. Those processes are the result of bringing together the brainwork of countless scientists, inventors, and engineers.

Economic Organization

No less marvelous is the economic organization of our world which gathers little streams of materials from every continent of the globe, directs the course of each to the place where it is needed and can be used, processes and assembles them into an infinite diversity of products and again directs the products to the point where the buyer is waiting to acquire them in return for his part of the rewards which come from giving his portion of the service to this whole complicated process.

No human planning could understand and control this maze of relationships. To get an automobile together under the auspices of a governmental planning board and to get it to a customer who, by further planning, had the means for paying for it is simply beyond the capacity of human intelligence and human organization, if it is to be done on anything like the scale with which automobiles are built and produced in this country. We do not use overall planning for this purpose. Instead we use the planning of a multitude of planners: the managers of every business, big and small, concerned in the complex undertaking, the personal desires, judgments, and ability of every producer, of every workman, of every consumer. This whole great undertaking so complex yet on the whole so efficient has been given a name. It is a rather ugly name. We call it the "profit system." It has become customary to discuss the profit system somewhat shamefacedly as though there were some moral turpitude concealed in the process somewhere. Yet usually it works, and its performance is so outstanding in terms of material human welfare as compared with any other system ever devised in the past or the present, that we do well to stand by it and to continue its development to the best of our ability.

Redistribution of Wealth

We are at the moment going through a time of testing, in that large groups in our nation are endeavoring to gain prosperity by a redistribution of the products of industry without sufficient attention to increasing the good things to be produced. There are definite limits to the possibilities of redistributing the wealth which we produce. One example was brought out in the course of the profit hearings which were held in Washington last December. The aggregate profits of business for 1948 were about twenty billion dollars, the greatest the nation or the world has ever seen. That looks excessive. Why should we not work for our improvement in living standards by redistributing these profits to workers and consumers. I am one of those who believe we should be doing this; but let's not go too far and too fast. A simple calculation will show the limits.

There are about sixty million people employed in the United States. If the entire twenty billion dollars were distributed evenly among these workers, there would be about $333 apiece for each. At fifty work weeks per year this would give $6.66 a week. With a work week of forty hours each worker would receive 16 2/3 cents per hour wage increase. Now 16 2/3 cents per hour increase is less than is ordinarily asked in wage negotiations. It is less than has been granted in many cases in the recent past. Yet if granted across the board to all workers, business profits, after taxes, would disappear and the necessary governmental taxes would take away 100 per cent of business profits before taxes.

Profits and Progress

This simple calculation shows the very limited usefulness of wealth redistribution. Certainly not more than one half of those profits could be taken away in wage increases or price reductions without drawing business into a tailspin. Probably very much less than one half is available, for it is the function of profits to finance not merely the expansion of industry which must accompany a growing population if the standard of living is to be maintained, but also the improvements in production, equipment, processes, and products required to continue the process of raising the standard of living.

These are broad over-all figures which are often inapplicable when it comes to specific situations. There are large groups of our people who should receive more income. There are industries and businesses which should be reducing their profits and paying larger wages or lowering their prices—particularly the latter. There are certain redistributions of income which will make for increased business and production and a higher standard of living; but to focus attention on redistribution, whether on the part of industry by endeavoring to retain an undue volume of profit, or on the part of employees by endeavoring to obtain an undue share of profits through increased wages, draws attention away from the fundamental necessity for increasing production and the necessity of profits to accomplish this end.

Economics and Morals

The various processes which I have been discussing lie within the field of economics; but ultimately they present themselves to us as much in the guise of moral considerations as of economic problems.

What is the relation between economics and morals anyway? One gets the impression that conventional economics is based on the conviction that attention to private interests on the part of all the elements of the economy results beneficently and automatically in the service of the general interest. This was more or less definitely stated by Adam Smith.

If this were ever true, it appears to be so no longer. It certainly has been modified by the immense power and influence of large-scale industry and organized labor. When the coal industry as a whole, or the steel industry as a whole, or the oil industry as a whole, even without collusion or conspiracy, acts in accordance with its immediate self-interests,

it is a different thing in kind as well as in size than when a corner grocer so acts. When nationwide organized labor in a given industry acts in accordance with its short-range self-interest, there is no decision of the Supreme Court, relieving them of charges of conspiracy, which can relieve them of the responsibility for the effects of their action on the course of trade and on the general well-being of the nation of which they are such an important and determining part. Moral responsibility is inherent in the decisions of the greater industries and the great labor unions simply because they are great and because they deal with the vital decisions of our economy.

In the face of these new responsibilities resulting from the size and influence of business and labor organizations, we are faced with new and serious problems. It is doubtful whether these problems can be solved by asking business and labor to make all decisions on a moral basis instead of on the basis of self-interest. It is not at all clear, for instance, that one can determine freight rates and railroad wages on purely moral grounds. The attempt to do so would lead to inextricable confusions. What is the clue to the useful and effective acceptance of the moral responsibilities which we have described?

Short-range and Long-range Self-Interest

I suggest that it lies in the difference between short-range and long-range self-interest. Short-range self-interest looks to the immediate advantage of the small group. It assumes that such advantages are worth fighting for even though they result in slowing up the progress of the whole society of which this small group is a part. May I suggest that such a view-point is both morally and intellectually indefensible. It is both bad morals and bad economics.

On the other hand, if we can revise the old notions of the ultimate beneficence of the sum total of selfish decisions, to define those selfish decisions as being based on long-range self-interests as distinguished from short-range self-interests, then do we not have a theory of economics which is adapted to our modern conditions of powerful business and powerful labor?

These are brave words; but they are not easily translated into brave and useful action. They involve a thoroughgoing process of moral and intellectual education. They have to affect the habits of thought and modes of action of millions of people in humble and exalted positions in all activities of business, labor, and government.

MICHIGAN'S MANUFACTURING PATTERN

According to recently released data from the 1947 Census of Manufactures, manufacturing in Michigan is largely concentrated in less than a dozen of the 83 counties of the state.

A trend toward a wider geographic distribution of manufacturing in Michigan is indicated by the fact that the proportion of the state's total number of workers and number of establishments found in the nine major industrial counties declined 5.8 per cent and 7.4 per cent respectively during the period of 1939 to 1947.

MICHIGAN MAJOR INDUSTRIAL COUNTIES: 1947	All Employees (Av. for Yr.)	Production Workers		Establishments	
		Av. for Yr.	% Inc. Over 1939	Number	% Inc. Over 1939
Genesee	55,200	47,900	44.7	215	54.7
Ingham	25,900	21,400	67.2	181	40.3
Kalamazoo	20,800	17,000	54.5	250	39.7
Kent	49,200	42,000	75.0	694	41.3
Muskegon	30,200	25,600	89.6	189	51.2
Oakland	44,600	36,800	128.6	568	308.6
Saginaw	21,800	18,700	53.3	197	23.9
Washtenaw	23,100	18,600	279.6	164	39.0
Wayne	496,400	417,200	34.0	3,861	39.3
9-County % of Michigan Total	78.8	78.6		63.9	

Source: Census of Manufactures, 1947, Series: MC100-2

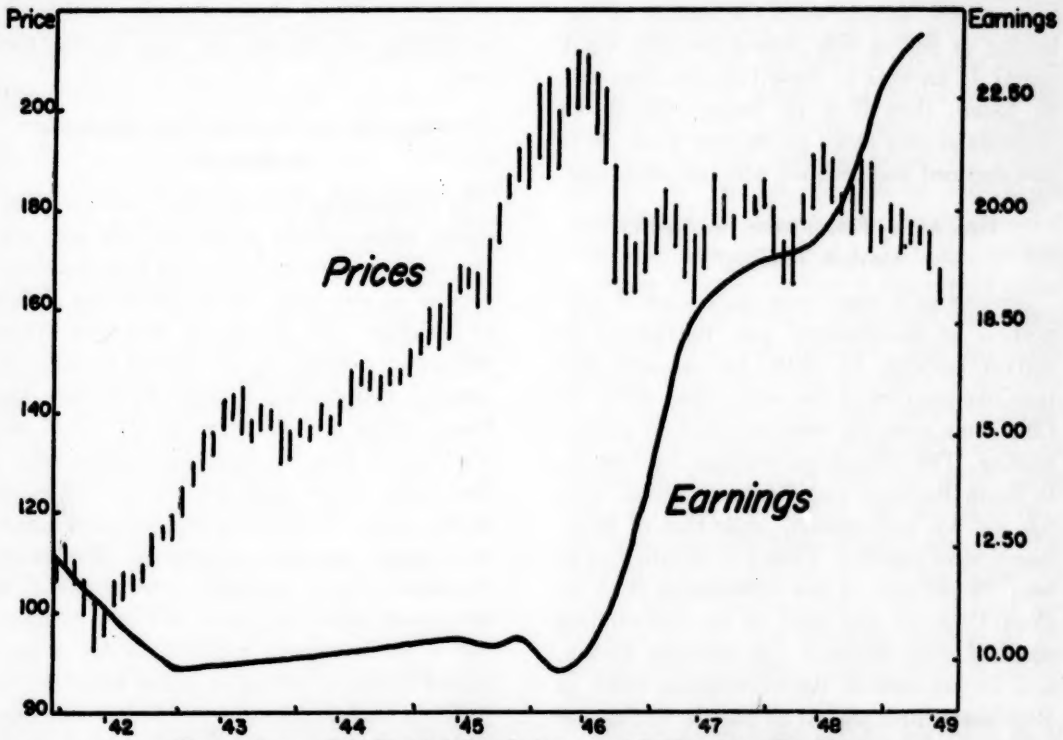
An explanation of why stock prices can fall even though earnings rise

What is Happening to Stock Prices

By Wilford J. Eiteman

THE Dow-Jones average of industrial stock prices stood at 116.6 on the day before the Pearl Harbor attack. At that time average per share earnings for the thirty Dow-Jones stocks were $12.32. Thus, at the beginning of World War II, stocks were selling at 9.4 times current earnings.

Immediately following the Japanese attack, market quotations declined to 92.9 and then began a slow steady ascent to a seventeen-year high of 212.5 reached on May 29, 1946. During the four quarters immediately preceding this peak, earnings were $10.24. Thus it will be noted that prices rose 152 per cent during the war-period bull market, while earnings declined 16.9 per cent. After the war the behavior of the market was even more inconsistent. By June 13, 1949, the industrial average had declined to 161.6. Meanwhile, per-share earnings increased from $10.24 to $23.91; that is, a 135 per cent increase in earnings after income taxes was accompanied by a 23.2 per cent shrinkage in stock values. The lack of correlation between prices and earnings during the 1941–1949 period is portrayed graphically on the accompanying chart.



Comparison of Industrial Stock Prices with Earnings Per Share

Prices in the stock market are set by the interplay of the forces of supply and demand. Supply and demand, in turn, are determined by the *number of individuals* seeking to buy or sell and by the *notions of value* held by those engaging in market activity. Many persons accept market quotations as representing the evaluation opinions of all stockholders, those who do not trade as well as those who do. This is true only if stockholders refrain from trading because their present evaluations coincide exactly with current quotations. Actually, as will be shown, many stockholders ignore the market entirely and refrain from participation in its activity because they are too busy to trade, have no funds to invest, or feel that speculation requires special knowledge and ability which they do not possess. All of which leads to a conclusion that is obvious: quotations merely measure the evaluations of *those who trade*.

If this is so, then two questions of importance are raised. How many persons have been involved in trading? What are the factors that have caused them to enter the market on the buying or selling side during the past eight years? If answers to these two questions can be found, then it is no longer difficult to understand why stock prices rose when earnings declined and declined when earnings rose.

How Many Persons are Involved in Market Trading?

Strange as it may seem, only a small proportion of shareholders ever participate in market activity. In 1948, for example, less than one per cent of the outstanding shares of Coca Cola common were involved in market trading. The similar percentages for trading in Sears Roebuck and Eastman Kodak were 5.4 and 5.0, respectively, while that of Bethlehem Steel was 20.6. Thus it is certain that at least 99 per cent of the outstanding stock of Coca Cola, 94 per cent of the outstanding stock of Sears Roebuck and Eastman Kodak, and 79 per cent of the outstanding stock of Bethlehem Steel played no part in setting the prices of these issues in the market.

A market in which trading is limited in volume is said to be "thin." Thinness denotes a stability of stock ownership, for if every stockholder were satisfied to hold his shares, market activity would vanish altogether. Stability of ownership is apt to be accompanied by unstable prices. When the majority of investors refrain from trading, the market becomes increasingly sensitive to the whims of the minority who do trade. For example, in 1948, if an additional one per cent of the shareholders of Coca Cola had decided to sell, downward pressure on the price of this issue would have been doubled.

What was true of Coca Cola in 1948 has been true to a lesser extent of the market as a whole since 1934. Prior to 1934, shares traded varied from 32 to 122 per cent of total shares listed. Since that year shares traded have usually been less than 25 per cent of total shares listed. In 1942, for example, the course of prices was determined by the attitudes and activity of the holders of less than 9 per cent of outstanding stock since 91.45 per cent of listed shares did not participate in trading activity at any time during the year.

What are the Factors that Motivate Investors?

It is generally believed that investors buy shares when current prices are low and sell shares when current prices are high by comparison to earnings, while speculators strive to anticipate the activity of investors. Thus the market activity of both groups contributes towards maintaining a high correlation between prices and earnings. If this were the whole story, then the decline in market values that began in the early summer of 1946 could be interpreted as meaning that investors failed to forecast earnings accurately. Erroneous forecasts offer a plausible explanation of a temporary failure of prices to follow earnings but a much weaker explanation for a prolonged failure of prices to follow earnings.

When market prices do not follow earnings, one is inclined to conclude either that prices

are not based upon earnings or that investors have failed to anticipate earnings accurately. This conclusion is based upon an assumption that the relationship between prices and earnings is constant. The relationship, however, is not always constant. To determine the amount of variation in the ratio that is possible, one needs only to divide actual market prices by earnings per share. If this is done for recent years, it will be found that in 1941 investors were paying $8.50 for a dollar of corporate earnings, that in 1946 they were paying $20.80 for a dollar of corporate earnings, and that in June of the current year they were paying $7.02 for a dollar of corporate earnings.

The normal price-earnings ratio is determined partially by an investor's notion of the proper relationship of price to earnings, but is also influenced by many other factors such as alternative investment opportunities, changes in the propensity to consume, variations in income, and the like. For example, an intelligent investor does not buy stocks at twenty times anticipated earnings when he can safely lend his savings at 5 per cent interest. He might be willing to pay such prices for stocks, however, if his only alternative were to lend his savings at 2 per cent. Similarly, one without funds for investment cannot buy stocks even at prices as low as five or six times earnings. Factors such as these cause the actual price-earnings ratio to fluctuate widely from time to time. If the ratio falls sharply enough, prices may decline even while earnings increase. To understand the strange behavior of the stock market in recent years, it is necessary to discover why the popular concept of the proper relationship of prices to earnings changed so drastically.

Why did the Capitalization Rate Change?

During the period 1942 to 1946 the cash income of many individuals from wages, interest, rents, and dividends (after taxes) exceeded their expenditures for consumer goods. This was to be expected since (1) rationing reduced the physical quantity of goods available for purchase, (2) price control kept the dollar value of purchases low, and (3) the high level of industrial activity increased individual incomes. High incomes and low expenditures left a balance available for investment. Some of the funds were used to buy government bonds, some were carried in the form of higher bank balances, but some of them must have been used to purchase stocks and bonds. Since the situation described was characteristic of almost all individuals, there was no off-setting incentive to sell. In other words, during the war period the predominant attitude of individuals toward the market was that of buying. As was explained earlier, the impact on market prices of even a small increase in buying is sufficient to send prices soaring.

It is significant that stock and bond prices began their descent about the time war controls were removed. The ending of rationing encouraged purchasing; removal of price control allowed prices to soar. The net effect for most individuals was that expenditures rose more rapidly than income with a consequential shrinking in the balance available for investment. The impetus to spend was augmented by the war-time campaign slogans, "to save for that post-war home" or "refrigerator" or "automobile." Some individuals balanced their budgets with funds obtained from the sale of stocks and bonds. In any case, the effect of the rise in the cost of living was to greatly reduce investment purchases. Again it may be repeated, the aggregate amount of selling does not have to increase much to send security prices into a tailspin. Normally bargain prices of securities would in themselves act to curb consumptive spending but in recent years this has not occurred; partially because high prices have made it difficult for large segments of the public to obtain what they consider to be the bare necessities of life, and partially because of an insane desire of many persons with Chevrolet incomes to drive Cadillacs.

During the period 1942–46, corporate cash income remaining after the payment of wages,

interest, rents, taxes, and dividends exceeded corporate expenditures for capital goods. This was to be expected since raw materials were subject to allocation and since the government financed much of the capital goods needed in the production of war goods. The significance to the present analysis is that corporations were not selling great quantities of securities at a time when the demand for securities was at its maximum. Following the cessation of hostilities, conversion to peacetime production created an enormous need for capital goods. Retained earnings were inadequate for the purpose, so corporations turned to the security markets for funds. Their action augmented supply at a time when the high cost of living and a desire for liquidity was drying up demand. The fact that stocks are currently selling at nine times earnings whereas bonds are selling at thirty-five times interest payments explains the forced preference of corporations for bond rather than equity financing.

Conclusion

It is generally assumed that the price-earnings ratio is constant so that changes in the market price of securities depend upon changes in earnings. In the past eight years the price-earnings ratio has not remained constant. Hence instead of there being one variable (earnings) there have been two (earnings *and* the price-earnings ratio). When the two variables move in opposite directions, they exert counter-acting influences upon prices. Therefore, the direction in which prices move will depend upon which variable has exhibited the greatest change.

The analysis just made has some significance in respect to the future course of security prices. As long as individuals continue to prefer consumption to investment or to insist on keeping their savings in liquid form, the price-earnings ratio applied by buyers and sellers in the market evaluations of common stocks is certain to remain low.

When the intense desire for spending and liquidity passes, the price-earnings ratio will tend to rise and security prices will rise relative to earnings. If, in the course of events, this rise in the price-earnings ratio should happen to occur during a period of declining corporate earnings, we may witness the unusual but quite logical spectacle of declining per share earnings being accompanied by rising security prices.

MAJORITY IN SURVEY SEE PRICES LOWER OVER NEAR-TERM

A recent national survey conducted by George Gallup, Director, American Institute of Public Opinion, showed that continued relief from the high cost of living is envisioned by most voters for the next few months at least.

This widespread belief is undoubtedly a factor in the current recession, although no one can estimate how extensive or important a factor it is. Probably there are families who are postponing certain purchases in the belief that, by waiting, they can get a more favorable price.

The survey was an attempt to measure this one aspect of public psychology so far as the economic situation is concerned. Voters representing a true cross-section of the nation were asked: "Do you think that prices, in general, will be higher, lower, or about the same six months from now?"

Last December, when the same survey was conducted, only about one-third looked for lower prices. The survey is not a forecast of economic trends, since the average voter has no expert knowledge that would qualify him for price forecasting. His beliefs and impressions about prices in the future, may turn out to be right or they may prove quite wrong. But right or wrong they are likely to have an effect on current buying.

The trend follows:

	Today	March, 1949	December, 1948
Higher	10%	9%	18%
Lower	51	51	33
About same	31	31	39
No opinion	8	9	10

A plea for a better understanding in labor relations

The Future of Labor-Management Relations

By Cyrus S. Ching

THE task of making predictions in the field of labor-management relations is a most difficult one because there are so many variables involved and they are subject to rapid change. In looking back a few years, we realize that we have taken in our stride a lot of changes in labor relations. Had we forecast some 15 years ago some of the events which have taken place, or predicted some of our present policies, they would have seemed incredible. There are, however, some elements in the situation which do lend themselves to discussion here and now because they will play a major part in determining the future course of our labor-management relations.

In our thinking about industrial relations, there are two or three points which we seem inclined to forget—which we thoughtlessly or deliberately overlook. One of them is that in 1935, a law was put on the statute books which made collective bargaining the national policy of this country. That law was reaffirmed in 1947 by the passage of the Taft-Hartley Act.

Now, in labor relations, the national policy of this country is collective bargaining. The American people evidently want it that way, and it doesn't make a bit of difference whether you like it or not—there it is. Sometimes I feel that if we in government, in labor, and in management spent as much time trying to make the national policy work as we do in abusing each other, possibly we would get farther.

Free collective bargaining, in my opinion, can be one of the cornerstones of our democratic form of government. That statement is predicated on the assumption that both labor and management will accept their full responsibility in making free collective bargaining work. And if labor and management do not accept their full responsibility for making it work, then collective bargaining will fail and, because of the profound effect on the whole national scene of the relationship between employer and employees, it is conceivable that our government may be torn down by its failure.

Therefore, I think that it behooves those in management to think a lot about how to make collective bargaining work. We cannot make collective bargaining work by abusing one another. We cannot make collective bargaining work by classifying people in our own minds. And we cannot make collective bargaining work by dealing emotionally with the subject.

A Matter of Living Together

It is amusing at times to observe the attitude of people who go into negotiations with the idea of getting a lot of things written into a contract; they think that settles the whole problem. There are too many people in both industry and labor who look at each other as antagonists; they do not think in terms of getting along together, but rather regard the other fellow as a sworn enemy. They lack the confidence that should exist between people.

The great problem is that of living together. You know, this matter of labor relations and dealing with labor unions is similar to the situation of a young man meeting a young lady. First they are introduced, then they have recognition. After a while they have acceptance; and finally they enter into a marriage contract. I ask any man or woman how he would get along with his wife or how she would get along with her husband if they continually referred to the marriage contract as the basis of their relationship. It just does not work that way!

It is just as important for us, in dealing with labor relations, to think in terms of living together and understanding each other as it is for us to have that same type of thinking and the same type of relationship in our domestic relations.

I hear a lot of complaints on the part of people in management that these union fellows are not interested in their business and they do not understand the business, and if they only knew just a little something about the economics of the business, how much easier it would be for everybody. Perhaps that is true. But it means that there is a big job of salesmanship to be done. Maybe it would not hurt for some of the people representing management to do a little studying and thinking about some of the problems of a responsible labor leader. If you can have a better understanding of his problems, then possibly he will have a little better understanding of yours. He will at least have some sympathy for your point of view if you have sympathy for his.

In other words, in dealing with our labor relations problems, let us stop thinking of the guys across the table, and think in terms of the mutual interests and mutual responsibilities of the people on both sides of the table—the mutual responsibilities to those they represent, whether they be labor or stockholders. And they have a responsibility, both of them, to the American people.

If we in this country are not able to demonstrate that we can get along together and that we can solve our problems by ourselves; if we do not show to the world that we are capable of accepting our responsibilities and that we are united; then our influence in world affairs will not be as effective as it should be. What is the use of our talking to the rest of the world of how well a free system of government works, or how nicely we get along together, of what a wonderful thing a free system is, of the advantages we have over others in the way of a better economy and higher standards of living, if we are unable to demonstrate to the world at the same time that we can get along together in a satisfactory way?

Salesmanship Needed

I believe that one of the most important things in labor relationships—from the viewpoints of both labor and management—is good salesmanship. Too often management takes a point of view or labor takes a point of view, and they say, flatly, "There it is." Neither accepts the other's point of view, and so they proceed to get angry with each other and call each other names.

If your corporation wanted to make a sale to the United States Steel Corporation, your salesman would call on the purchasing agent. Probably he would not get within about seven layers of the purchasing agent, but at least he would have made a try; he would have made some contacts. The word might come out, "No, not interested today." Would the salesman go out and put advertisements in the newspapers or start damning the fellow on the sidewalk because his proposal was not accepted the first time it was offered? He would find means of making a contact there. He would find ways of learning what the other fellow was thinking, so that the next time he offered his proposal he could show to the purchasing agent the advantage of accepting it.

Reason vs. Emotion

But we do not handle labor relations that way. And I want to say to you here and now that if you want real emotion in labor rela-

tions, you should sit down day after day with groups representing labor and management. In those negotiations you find more emotion on the management side than you do on the labor side.

There are a number of people today in American industry (and I suppose that this goes for everybody representing industry in the higher echelons), who know the economics of their business; they know what it is all about and they can tell you the complete story. But when they send people into labor conferences to represent them, labor is always better prepared. Labor knows what it wants and what it is talking about; it has its facts and figures there and lays them down. And the people who represent management in most of these negotiations do not know what the score is.

This situation leads me to one definite conclusion: that management—topside management—must become more interested in this whole matter of collective bargaining if we are going to preserve our economy, if we are going to do the things that we must do in order to preserve our way of life.

Some Dangerous Generalizations

Stop to consider this, and be realistic about it: We have in this country today over 16,000,000 people in organized labor; we have hundreds of thousands of labor negotiations in this country that are settled satisfactorily. It is only the sick people that we hear about. It is only the bad relationships that we hear about. Occasionally there develops an economic condition that forces a work stoppage or creates a bad situation even where the relationships are good; but there is a much greater chance of solving some of the economic problems if you have a decent, sound relationship.

There are some irresponsible people in labor; there are some people in labor who are arbitrary; there are some people in labor who make wild statements. There are other people in labor who are cooperative and who are working toward good, sound relationships. But I want to make an observation based on my experience in dealing with people: If you were to take a hundred labor leaders selected at random, and a hundred people representing management, selected in the same way, and swapped them over, putting each in the other fellow's place, you would not change the human beings very much. The arbitrary, arrogant manager would be an arbitrary, arrogant labor leader, and the cooperative manager woud be a cooperative labor leader. And so it goes.

We are not dealing with classes and masses in this country, thank God! We are dealing with human beings, and we have a responsibility to our fellow man to make our system work.

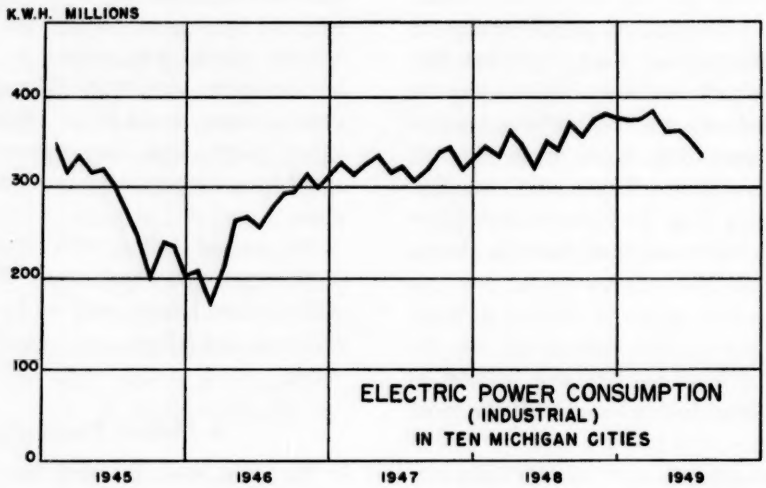
A Mutual Responsibility

We must keep in mind our changing conditions and do what we can to meet them. The important thing, after all, is our freedom—individual freedom is the most important possession we have. The American way of life, according to my notion, is our ability to adapt ourselves to changing conditions. And if we have in mind one objective—namely, the preservation of our individual freedom—and we try to deal with the other problems within that framework, then we can get somewhere. But we will not get anywhere by saying, every time something comes up, "The American people have changed—all except me. I am just the same old good American I always was, but everybody else seems to have changed."

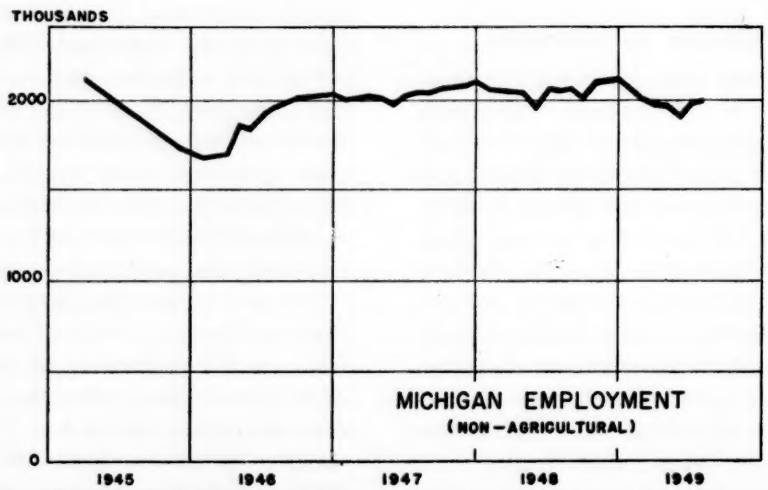
We need to do a lot more thinking about these problems, in terms of maintaining our freedoms and cooperating in our attempts to solve some of them, rather than saying, every time something comes up, "Well, that is socialism. We're on our way. Goodbye, boys." That attitude is not very sound nor constructive.

Instead, I think we must try to make some contribution toward solution of the problems. I think we in government, you in industry, and certainly the people in labor, have a responsibility of developing a better type of

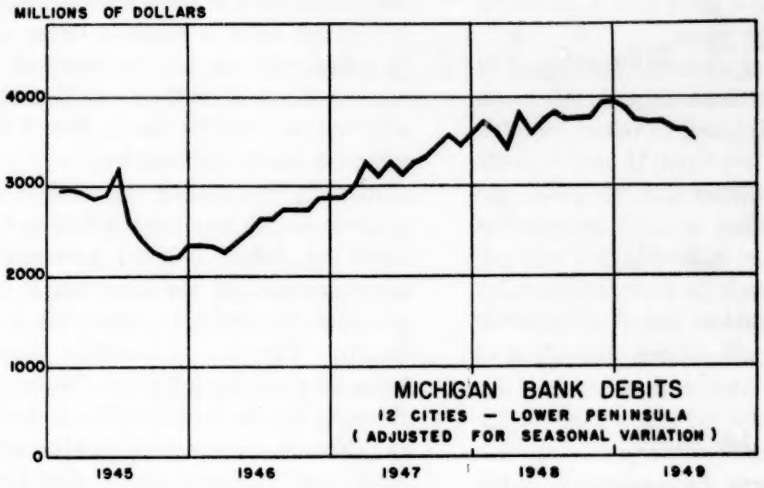
Michigan Business Indicators



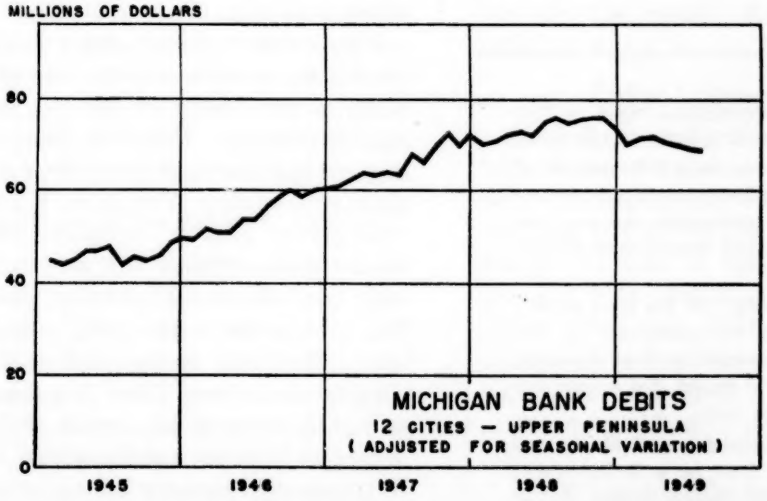
POWER CONSUMPTION DECLINES SHARPLY—Industrial power consumption is at the lowest level since May 1948. The major part of the decline in power consumption since the first of the year occurred in the Detroit area where reduced steel operations were the principal influence.



EMPLOYMENT RISES SLIGHTLY—From mid-May to mid-July employment rose primarily because of a return to jobs of workers engaged in labor disputes and a slight increase in hirings by automobile manufacturers and related industries. Unemployment is most widespread in the Upper Peninsula and also in those areas in the Lower Peninsula where major employment is normally provided by foundries not producing for the automobile industry. (This series not adjusted for seasonal variation.)



BANK DEBITS—THE MOST INCLUSIVE MEASURE OF BUSINESS ACTIVITY—Volume of checks written against bank deposits continues the decline in evidence since the first of the year. After seasonal variation adjustment July bank debits were 8.9 per cent below a year ago.



BANK DEBITS IN THE UPPER PENINSULA—July debits were 10.9 per cent below a year ago and at the lowest point since August 1947. Business contraction in this area reflects lower employment in mining and operations of only 35 to 40 per cent of capacity in the lumber and woodworking industries.

labor leadership than we have had. There have been a lot of inexperienced people in labor. Some have developed into responsible and good and sound labor leaders; I have watched some of those I know grow over a period of the last seven or eight years.

But you have a responsibility for helping to develop better labor leadership in this country. Your attitude is going to reflect the kind of labor leadership you have. If your attitude is arbitrary and militant and arrogant, and one that favors dealing at arm's length, that is the kind of labor leadership you will develop. If your attitude is such that you try to work out the problem and develop better relationships, you will develop that type of labor leadership.

The Job Ahead

It may be a pretty discouraging task, but it will not be a more discouraging task than any other sales task you have. Anyone who is familiar with the problems of distribution of consumer goods in this country knows what competition for the consumer's market is; he knows what a difficult job the salesman is up against. If a salesman who failed to make a sale just became discouraged and quit, we would have a very poor distribution process in this country. So think of labor relations as you would think of good salesmanship. And if we can get labor to think in terms of selling its wares, then we will be better off. And if you can negotiate without emotion and know what you are talking about, then I think we will have made real progress.

Recently I sat in on negotiations affecting a tremendously important industry. Everyone knew that failure to reach agreement would be catastrophic. It was something to see those labor and management representatives sit down together. The man representing the industry knew all about its activities. He knew everything, he had his facts and figures, he was logical. The man representing the union was equally well prepared. Out of that kind of negotiations there probably will come a settlement and you may not hear much about it.

So when you go into negotiations, go into them intelligently, with your figures, your facts, with a logical presentation, so that you won't have to "play by ear" when you get in there.

I don't want to preach. But I do think that the key to the whole problem—the key to the safety of our country—is going to be our industrial relations. Therefore, those who are engaged in industrial relations have a tremendous responsibility. Too often, I am afraid, management puts in corporals when they should have captains and majors handling their labor relations. I think that management has to take the matter more seriously, and deal with unions in the same good faith it expects from them. There is nothing to be gained by trying to lick a union or show it up before its members and the public.

If you can convince leaders of organized labor that you do not want to hold them at arm's length but are willing to accept them and do business with them, then I think you will make progress, and your company, your workers and your customers will benefit as a result.

"FINANCIAL CONSIDERATIONS IN THE ESTABLISHMENT OF A NEW SMALL BUSINESS," just issued by the U.S. Department of Commerce, is designed to aid present and prospective small businessmen to review some of the basic facts and characteristics of business financing.

It discusses briefly: (1) The types of capital needed in a new enterprise; (2) The amounts and proportions of capital needed; and (3) Sources of capital. The explanations are in elementary terms.

The 18-page booklet is available, by mail or personal visit, from the U. S. Department of Commerce, 1038 Federal Building, Detroit 26, for 15 cents. (Stamps not acceptable.)

Also available: "The Small Businessman and his Bank," 13 pp., at 10c, and "The Small Businessman and his Financial Statements," 26 pp., at 15c.

One pattern of Great Lakes shipping is revealed in . . .

A Turn-Around on a Great Lakes Freighter

By Albert G. Ballert

EVERY schoolboy is aware of the vast low-cost traffic which moves on our Great Lakes. Beyond a few generalizations and flow charts, however, little has been written to let general readers understand the dynamics of this activity.

In an attempt to get a picture of this important form of transportation, which is unique to North America, the writer made a 1,570-mile turn-around aboard a lake carrier in September, 1947. A "turn-around" is the time elapsing during a complete round trip of a vessel including a stay in the port of origin. Throughout the trip of approximately seven and one-half days, a log was maintained. The following account is based on this record and on data received from a number of organizations which have a role in the Great Lakes trade. Features of the trip related here are those exemplifying the specifics of the Great Lakes coal and ore trade together with other activities noted along the shorelines en route.

Description of the Albert E. Heekin

The lake trip was made aboard the *Albert E. Heekin*, a vessel built in 1917 for about $400,000, but which now would cost several million dollars to replace. This vessel is 545 feet overall and has a beam of 58 feet. The largest bulk carriers on the Lakes have been 642 feet long and have had a 67-foot beam, but a vessel now under construction has dimensions of 678 feet by 70 feet. From the deck to the keel of the *Heekin* is 31 feet. In the hold of the vessel are three huge compartments having a total of 32 hatches. Along the sides and bottoms of the hold are water tanks used when the vessel is en route without cargo. These tanks, about 5 feet wide on the bottom of the vessel and 4 feet wide up the sides, provide a double hull for most of the ship. The *Heekin's* normal speed is approximately 11 miles per hour.

Radio telephone permits the lake carriers to keep in contact with one another at all times; and a marine telephone exchange at Loraine, Ohio, allows ship-to-shore communication with any point served by telephone.

The officers and crew of the *Heekin* number thirty-eight, the crew having a work schedule of four hours on duty and eight hours off. Quarters for the officers and deck crew are forward, while the remainder, including engineers, firemen, oilers, coal passers, cooks, etc., live aft. The captain, Robert F. Leng, has sailed our inland seas for forty-odd years.

Port of Origin—Sandusky

Sandusky is situated midway between Toledo and Cleveland, and lies on the east shore of Sandusky Bay. The three coal loading machines at this port handle about 12 to 13 million net tons of eastern Kentucky and southern West Virginia bituminous coal annually. This high volume places Sandusky second only to Toledo as a coal trans-shipping port on the Great Lakes and in fourth or fifth place among all such ports in the United States.

The first coal loading facilities at Sandusky were installed in 1898, but the initial machine of the type now in use was completed in 1914. Yard facilities at the docks accommodate 1,128 cars. A mile or so inland from the coal docks are the receiving, classification, and storage yards. In these yards (Bay Junction),

which have a total capacity of 8,960 cars, the cars of coal are assembled in proper order for delivery to the docks.

The Log

September 3

1:08 p.m.—The *A. E. Heekin*, an M. A. Hanna vessel (one of thirteen owned or operated by this organization) arrived at the Pennsylvania Railroad coal docks in Sandusky, Ohio, and began loading at Pier No. 2 immediately. The charge for carrying coal for lake shipment from the Middle Appalachian fields to Sandusky is $2.51 a ton for low volatile and $2.36 a ton for high volatile.* Eleven cents a ton is the fee for dumping the coal into a lake carrier. A car of coal, which averages about sixty tons, can be unloaded at the rate of nearly one per minute. About a dozen men are required for the unloading and switching operations at each dumper.

7:13 p.m.—Loading the 206 cars of coal was completed and the ship cast off at once. The 12,618 net tons of cargo coal and 317 tons of vessel fuel were taken aboard in 6 hours, 5 minutes. Perhaps a better idea of this volume can be gained if one considers it as three 69-car trains of coal.

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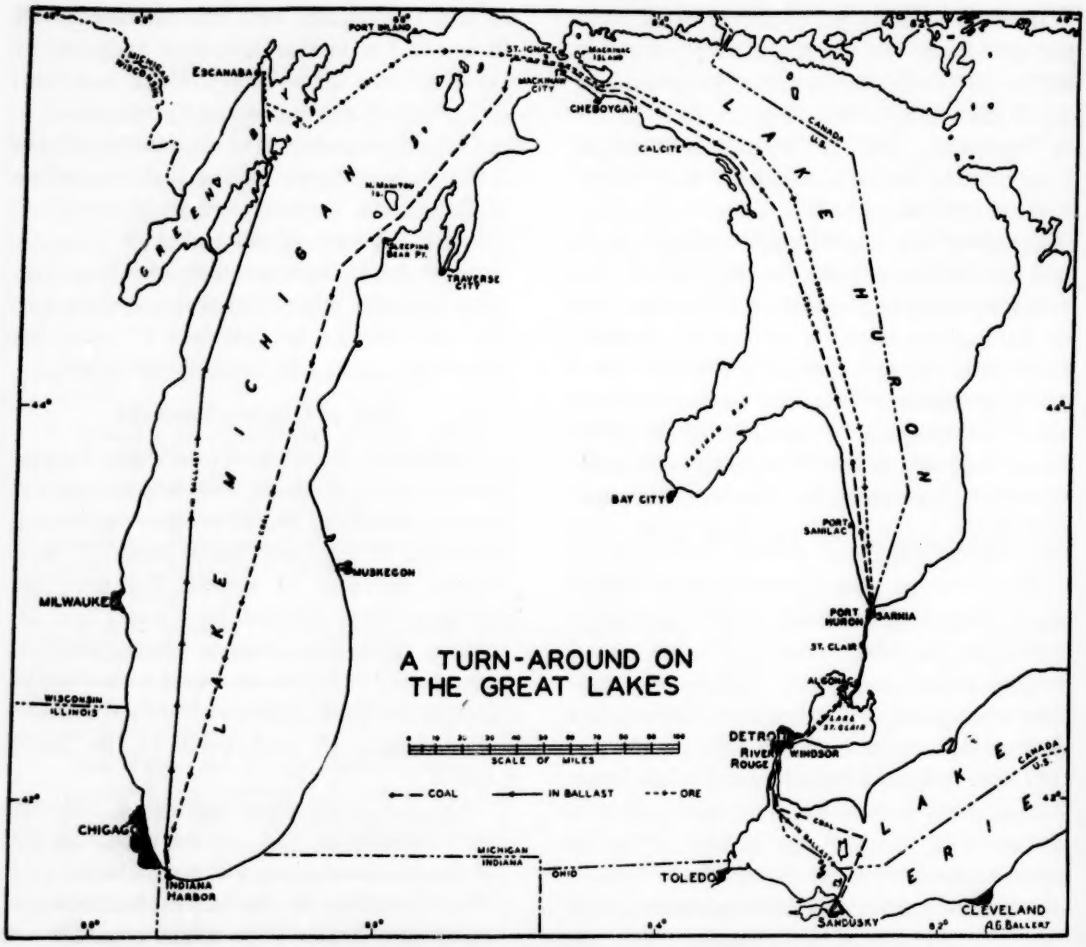
* Rates effective January 5, 1948. Practically all of the lake coal from these fields is trans-shipped at Sandusky or Toledo.



A TURN-AROUND ON THE GREAT LAKES—A turn-around is the time elapsing during a complete round trip of a vessel including a stay in the port of origin.

This was the start of the *Heekin's* nineteenth turn-around of the season. On eleven of the trips to upper lake ports, coal was the cargo, while on the remaining eight trips upbound, the vessel traveled in ballast. Iron ore was carried on all downward trips.

The course out of Sandusky Bay lay between the five-mile long spit, known as Cedar Point, and the Marblehead peninsula, a shipping point for limestone and the center of the western Lake Erie fruit belt. From here the route lay toward the Southeast Shoal Light off Point Pelee, Ontario, a focal point for all routes from Sandusky eastward. As the captain stated, "It's like heaven, no matter where you are, you're headin' for it." Upon reaching the light a westward course was laid between Pelee Island and Point Pelee.

September 4

2:12 a.m.—Abeam the Detroit River Light near the southern entrance to the river. In traversing this busiest of American rivers, one crosses the international boundary many times. Lime Kiln Reach, an outcrop of the bedrock in the lower Detroit River, was in earlier times a controlling factor in the draft of vessels moving between the upper and lower Lakes.

5:20 a.m.—Abeam the foot of Woodward Avenue in downtown Detroit. A marine post office boat contacts all lake carriers operating through the river.

6:15 a.m.—Entered Lake St. Clair, smallest of the chain of lakes.

7:57 a.m.—Entered the St. Clair Flats Canal, a channel dredged through the shallow waters of the St. Clair River delta.

Along the 39-mile St. Clair River, varied uses are made of the shore zone, particularly on the American side. It provides quite a contrast to the Canadian bank. Summer homes and resorts built on "made" land border most of the American shore along South Channel from Lake St. Clair to Algonac, about 10 miles upstream. The Canadian side in this sector is largely marshland and Walpole Island, in the southern portion of the river, is an Indian reservation.

10:15 a.m.—Abeam Marine City, Michigan. The shell of an old sugar factory remains prominent in the landscape. This plant was at one time supplied with sugar beets from Saginaw River basin, principal area for this crop in eastern United States.

11:10 a.m.—Abeam St. Clair, Michigan. The largest structure along the waterfront is the factory of the Diamond Crystal Salt Company. Towers of several salt wells are visible in the background.

12:10 p.m.—Abeam Marysville, Michigan. Along the shore are large plants of the Detroit Edison Company, Morton Salt Company, and Chrysler Corporation.

12:35–1:05 p.m.—Traversing the Port Huron, Michigan-Sarnia, Ontario sector of the river to the Blue Water Bridge at the entrance to Lake Huron. A current of five to six miles per hour reduced the speed of the ship to seven or eight miles per hour.

Along the Sarnia shore is the large petroleum refinery of Imperial, Limited and the synthetic rubber plant of the Polymer Corporation, Limited. Near the Blue Water Bridge are remnants of the ore docks once used for trans-shipping ore by rail to Hamilton, Ontario.

1:40 p.m.—Abeam the lightship *Huron*. It is the only American vessel used for such purposes on the Great Lakes. At this point the upbound or western course was taken by the *Heekin*. For safety purposes this route diverges about eight miles from the downbound route.

8:20 p.m.—Abeam the tip of the thumb of Michigan. From the St. Clair River to this point there are few towns and these are of but minor significance. It is indeed a contrast to the western shore of the state.

Across the mouth of Saginaw Bay, lake vessels commonly encounter some of their roughest weather. Waves of considerable size can be generated in this fifty to sixty mile-long arm of Lake Huron.

September 5

9:55 a.m.—Abeam Cheboygan, Michigan. To the north lies Bois Blanc Island.

11:00 a.m.—Abeam the widely-known Grand Hotel on Mackinac Island (pronounced *Mackinaw*). Up the slopes of this island is old Fort Mackinac. John Jacob Astor's fur trading post was located here. The several terraces on the island visible from the *Heekin* mark the Lake Algonquin and Lake Nippissing stages of Pleistocene glaciation. Were we to visit the island we would see many beach ridges which mark the series of successive uplifts which brought Mackinac Island to its present elevation.

11:10 a.m.—The Straits of Mackinac—This narrows, about four miles across is traversed by auto and railroad car ferries. Many proposals have been made for replacing these services by uniting Michigan's Upper and Lower Peninsulas by a bridge or a tunnel.

1:00 p.m.—At White Shoal Light. On the basis of candlepower this is the third ranking U. S. lighthouse, it having 3,000,000 candlepower. Here a southerly course was laid.

8:00 p.m.—Between South Manitou Island and Sleeping Bear Point. Nearby is Sleeping Bear Dune, rising 480 feet above the lake. This is actually a dune of about 100 feet in elevation perched atop a lake border moraine.

September 6

All of the forenoon the ship was out of sight of land. However, several of the car ferries which ply across Lake Michigan were sighted. At intervals the mates took bearings with the radio direction-finder to check the vessel's position. Orders were received via the radiotelephone for the ship to proceed from Indiana Harbor to Escanaba for iron ore rather than to go to Calcite for limestone as had been originally planned.

3:55 p.m.—Abeam the mouth of the Chicago River. The city's distinctive skyline was faintly visible on the horizon.

6:32 p.m.—At the outer end of the Indiana breakwater. To the left of the channel is the Inland Steel Company and on the right is the Youngstown Sheet and Tube Company. This port lies in the heart of the Chicago-Gary steel center.

6:01 p.m.—Docked alongside the Inland Steel Company's stock piles. Large reserves of ore, coking coal, and flux stone must be built up during the navigation period to tide the plant over the winter. During 1947 the lake receipts of these commodities at Indiana Harbor were 5,554,564 net tons of ore, 1,670,659 net tons of coal and 1,800,926 net tons of limestone.

Unloading the *Heekin* could not begin at once as Inland's bulk carrier, the *E. J. Block*, was unloading limestone brought from the company's Port Inland quarries at the northern end of Lake Michigan.

The *Heekin* used about 125 tons of coal in the 737-mile trip from Sandusky. Charges for transporting the cargo this distance were 68 cents per net ton plus 4 cents transportation tax. Thus the unit cost was slightly below one-tenth of a cent per ton per mile.

The total charge for the rail-water transportation of low-volatile coal from the Middle Appalachian fields to Indiana Harbor was $3.34 per ton compared with $3.89 per ton for all-rail shipment between the same points. Thus 55 cents per ton was saved by using the longer but lower cost route via the Lakes.

9:30 p.m.—Unloading the cargo of coal (low-volatile for coking purposes) from the *Heekin* got underway. Four eight-ton clam buckets were used in the operation.

September 7

8:50 a.m.—Unloading the cargo of coal was completed and the *Heekin* cast off immediately. The time required to unload was eleven hours, twenty minutes.

9:10 a.m.—Abeam the light on the end of the Indiana Harbor breakwall. A fairly dense smog was encountered until the vessel was a number of miles offshore.

As the *Heekin* was traveling without cargo, about 2,000 tons of water were carried in the tanks aft. This brought the stern draft to 15 feet, 3 inches while the bow extended only 4 feet below the surface of the lake. The minor volume of bulk cargo available at the southern end of Lake Michigan reduces the efficiency of lake carriers serving this area. In 1947 the principal shipments were 3,867,119

net tons of petroleum products from Indiana Harbor and 1,964,409 net tons of coal from Calumet Harbor (South Chicago).

Throughout the day few landmarks were observed, but the vessel's position was checked periodically with the radio direction-finding instrument. During the night another thousand tons of ballast were taken into the tanks.

September 8

5:38 a.m.—Abeam Plum Island Range Light. This route, which passes between Door County peninsula and Washington Island, Wisconsin, is known as Porte de Mort. At this point the *Heekin* entered into Green Bay.

8:06 a.m.—Abeam Sand Point and the foot of Ludington Street, the "Main Street" of Escanaba, Michigan, a city of 15,000 population. Ballast was being pumped out of the tanks. This slow procedure can delay the rapid loading of ore if the vessel's tanks contain much water when loading begins.

8:28 a.m.—Docked at Escanaba Ore Pier No. 6 and the taking on of ore began immediately. The trip from Indiana Harbor covered 288 miles and required slightly under one day.

Escanaba is the only ore port on Lake Michigan and shipments have been made since 1865. The ore received at Escanaba comes via the Chicago and North Western and the Chicago, Milwaukee, St. Paul and Pacific railways, largely from the Iron River district of the Menominee Range, in cars of 50–70 gross tons capacity. By pooling arrangement the ore is all handled over the Chicago and North Western's docks, this company originating about two-thirds of the tonnage. Some of the mines in the interior are owned by the Hanna Company. The ore carried by the *Heekin* is known as "Weir mix" and has an iron content of about 52 per cent. This is but one of approximately 150 different grades of ore shipped on the Lakes. The Menominee Range first became important in 1880 when it was linked to Escanaba by railroad. In the Lake Superior District only the Marquette Range, which supplies a minor amount of the ore shipped from Escanaba, has been longer in production.

About seven men are required in loading ore aboard a vessel. The ship must be moved frequently in order to allow for equal distribution of the cargo. At no time were more than two chutes discharging ore simultaneously. This is in contrast to photographs commonly showing twenty to thirty chutes in operation.

10:58 a.m.—Loading the 11,578 gross tons (12,967 net tons) was completed and the *Heekin* was underway immediately.* The time required for loading was 2 hours, 30 minutes. Owing to the high specific gravity of iron ore, the hold of the vessel was only about one-third full, whereas the cargo of coal had filled all compartments.

The draft of the *Heekin* was twenty-one feet, five inches at the bow and twenty-two feet at the stern. Amidship, at the Plimsoll mark, the vessel drew twenty-one feet, seven inches. This allowed a freeboard (distance from water to deck) of about ten feet. Later in the season, the draft is reduced to the intermediate and winter plimsoll lines. The latter is nineteen feet, eight inches.

1:45 p.m.—Abeam St. Martin Island, a member of the archipelago which separates Green Bay from Lake Michigan. A course was set to the northeast and later eastward to the Straits of Mackinac.

11:55 p.m.—Abeam Mackinaw City at the Straits.

The portion of the trip eastward and southward through Lake Huron was almost entirely beyond the sight of land as the downbound route lies farther off-shore than the northbound route. Considerable fog was encountered in traversing the lake.

September 9

11:20 p.m.—Passing under the Blue Water Bridge at the exit from Lake Huron into the St. Clair River. At Port Huron a small vessel came alongside bringing the latest newspapers

* In the early days of shipping on the Lakes, all commodities except lumber were carried on a gross ton basis. At this time, iron ore was carried in barrels and conformed with this practice. At present, anthracite coal is the only other commodity which is commonly measured in gross tons.

and laundry and taking soiled clothing to be washed and ready for the next upbound trip of the *Heekin.*

September 10

5:00 a.m.—Abeam the downtown section of Detroit. As on the upbound trip, a government mail boat brought and took mail from the *Heekin.* Sleeping Detroit had the appearance of a huge ghost city.

5:40 a.m.—Tied up in the Detroit River at the dock of the Hanna Furnace Corporation. This was necessary as the company's dock facilities along the Rouge River were being used to unload the *Fellowcraft* which had a cargo of pig iron from Lackawanna, New York.

The 472-mile trip from Escanaba required about one and three-quarters days.

6:15 a.m.—Started easing the *Heekin* around into the Rouge River. The current of the Detroit River against the broadside of the ship makes this maneuvering a job for experts only.

6:30 a.m.—Docked alongside the Hanna Furnace Corporation's stock piles in the Rouge River and began unloading immediately. At this location, on Zug Island at the original mouth of the Rouge River, are the company's three blast furnaces. This plant is in the city of River Rouge. About two miles downstream, in the city of Ecorse, is the Great Lakes Steel Corporation plant with sixteen open-hearth furnaces. This steel plant and the aforementioned blast furnaces are a part of the National Steel Corporation. These units make this the only integrated commercial steel plant in Michigan. (Ford's plant is nearby and the McLouth Steel Corporation is completing a large development a few miles downstream at Trenton).

It is interesting to note that these strategic facilities are only about 1,500 feet from the Canadian border. Where else in the world are neighboring nations so trusting?

5:36 p.m.—Unloading the cargo of nearly 13,000 net tons of iron ore was completed and the *Heekin* cast off immediately for Sandusky, Ohio. The time required for emptying the vessel was 11 hours, 6 minutes or about equal to that needed earlier on the trip for unloading coal. To aid in speedily clearing the ship, a bulldozer was lowered into the hold to scrape the remnants of the cargo together. A similar procedure was used in removing the coal at Indiana Harbor.

September 11

12:05 a.m.—Docked at Sandusky. It was about seven days and eleven hours since the *Heekin* had previously tied up here. The ship was ready for another turn-around.

Conclusion

It is interesting to note the aggregate tonnage handled by the *A. E. Heekin* during 1947. The season began on April 14th when the vessel left her winter berth in Ashtabula, Ohio, and proceeded to Conneaut, Ohio, where a cargo of coal was loaded the same day. From this date until December 8, when the *Heekin* was again laid up in Ashtabula for the winter, 28 turn-arounds were made. This meant an average of a round trip about every 8½ days throughout the 239 days of operation. On 20 of the upbound trips, coal totalling 227,022 net tons was carried for an average of 11,351 net tons per trip. Fourteen of these coal cargoes went to Lake Michigan ports and 6 to the head of Lake Superior. The remaining 8 trips up the lakes were made in ballast. On all of the downbound schedules, iron ore was carried. A total of 312,234 gross tons (349,702 net tons) or an average of 11,151 gross tons was handled on each trip.

In the foregoing account, the writer has attempted to bring to light some of the features of the Great Lakes traffic which will allow a clearer picture of the nature of this activity. Without the advantages of the excellent natural waterway and efficient ships, it is difficult to speculate upon the manner in which the vast basic mineral resources of the American Heartland would be utilized.

BUSINESS BRIEFS

RAW RUBBER, ADVERTISING, AND ENGLAND

A United States plan to help British importers, a nation-wide publicity campaign by British growers to sing the praises of natural rubber, combined with sinking natural rubber prices could easily sap the strength of America's war-born synthetic rubber industry.

Hint of future happenings was given when the Department of Commerce recently issued an order cutting the use of synthetic rubber in the manufacture of automobile tire inner tubes from a minimum of 80 per cent to a new low of 45 per cent. Though this change in itself will only boost raw rubber imports by approximately 14,000 tons per year—a small amount when compared to annual imports of over 600,000 tons—it is significant when examined as the possible beginning of a trend.

The extensive publicity program, designed to increase consumption of natural rubber, will be handled by the Rubber Development Board, a Washington affiliate of the British-Malayan rubber growers organization.

Currently our government-owned synthetic rubber industry is producing at half of its productive capacity . . . selling its "general purpose" rubber at a federally-fixed price of 18½ cents per pound. Meanwhile, natural rubber, due in substantial part to the competition of the synthetic product, has dropped sharply in price; the current market price being about 16½ cents per pound.

The government had planned to either sell or lease the synthetic plants to private industry early next year, but the drop in natural rubber prices coupled with "aid Britain" ideas have officials extremely dubious over the success of this disposal program.

GREAT BRITAIN DOWN TO 54 MILLIONAIRES

The Inland Revenue Commissioners reported in July that Britain's supply of millionaires has dwindled down to only 54. The Commission regards anyone having a gross income of $400,000 or more as a millionaire.

Only 70 people on this little island cleared more than $24,000 after taxes even though over 2,200 had gross incomes of over $80,000.

Of the 21 million taxpayers, 18,375,000 cleared less than $2,000 and 2,030,000 people less than $600 after taxes.

The standard tax rate in Great Britain is approximately 45 per cent.

* * *

WHEAT SURPRISE!!!

The great winter wheat storage squeeze of 1949 that never came off was avoided largely through the efforts of farmers and private grain companies who—without government aid—put up enough bins and elevators to prevent it.

Extensive storage preparations by farmers, who were using their past experience to good advantage, and a smaller wheat crop than was expected, were the two conditions largely responsible for the comfortable position being enjoyed by the grain industry at the present time.

Farmers have bought more storage bins this year than ever before; in the state of Kansas alone there has been an increase in farm storage facilities of over 13 million bushels. Since 1948 over 24.5 million bushels capacity has been added to the nation's commercial store houses.

BUSINESS EXPANSION IN THE UNITED STATES

Business in the United States consists of approximately 500,000 corporations and over 3,400,000 small private enterprises and service organizations. Some of the larger corporations in their operations utilize the services of as many as 10,000 suppliers.

In 1901, when The U. S. Steel Corporation, one of the first billion dollar corporations, was organized, such large size was unique throughout the world. Today, however, in the United States alone there are 56 business enterprises, corporations, banks, public utilities, and railroads, that are worth a billion dollars or more. Businesses worth a million dollars or more have grown in number to more than 33,194.

Using volume of sales as an index of size, we find today that some 317 corporations and business organizations have yearly sales of goods and services of over 100 million dollars.

* * *

DIVIDEND REDUCTIONS

It has been noted on Wall Street that for the first time in many years reductions in dividends have outnumbered rate increases during June of this year. The *Wall Street Journal* notes that since many declarations in June are presumably related to second quarter earnings, the reductions of dividends may be regarded as an indication of earnings expectations during the second quarter of this year.

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RETAIL SALES

Though inventories have been going down for the first half of 1949, sales have remained at the 1948 level with declines in home furnishings and apparel being balanced by rises in foods and automobiles.

The Department of Commerce's seasonally adjusted index remained steady during the first six months—at 329 per cent of the 1935–1939 level.

One major reason which partially explains the good over-all sales performance of retailers during the past six months was the shift in income and savings. Heavy consumer savings which started in mid-1948 loosened up during the first half of 1949 and have directly benefited the retailer.

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SELF SERVICE IN DEPARTMENT STORES

Professor Malcolm P. McNair, Director of the 29th annual survey of Department and Specialty Stores as conducted by the Harvard Graduate School of Business, recently made a revolutionary recommendation concerning the utilization by department stores of the "self service" principle as popularized in food supermarkets. Said Professor McNair, "Modern women do not look on shopping, in the old-fashioned department store sense, as a major sport: they do not have the time it takes. Numerous mechanical developments more or less applicable to retail distribution have been incubating for some 25 years . . . these new developments will come with a rush when the time is ripe. And today labor conditions in retail distribution are rapidly making the time ripe."

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CREDIT REGULATION AND EXPANSION

In an effort to give business a "shot in the arm," the Federal Government recently took two direct steps: (1) allowing Regulation W, establishing minimum down payments and maximum maturities for consumer installment credit to expire on June 30, (2) lowering the reserve ratio for member banks in the Federal Reserve System.

With the end of Regulation W, it was expected that the revival of "dollar down with years to pay" credit would boost sales. Actually, the cancellation of federal control over credit has had little or no effect on the general picture.

A *Business Week* survey of retailers shows that few are taking advantage of the lapse in regulation to ease credit terms.

NEW ENGLAND BUSINESS TRENDS BRIGHTER

New England, the nation's No. 1 "Distressed Area," may soon be hauling down some of its distress signals. This region, hard hit by the spring business dip, shows some signs of recovery as woolen and rayon output is up while typewriter and appliance orders are increasing.

Thirty New England business leaders recently met with Secretary of Commerce Sawyer, who has been making an economic fact-finding swing around the country. They discuss methods and suggestions as to the possibility of obtaining federal aid. Mr. Sawyer viewed the New England economy as "not critical, and it is getting better in places."

A recent report of the New England Purchasing Agents Association said that though the tendency to reduce finished inventories continues, the trend to raise productive inventories grows stronger. Buying policies, the report stated, seem to be stabilized around the "one-month-ahead" level.

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DETROIT TOPS IN WAGE EARNINGS

The factory worker in Detroit received higher earnings on the average than his fellow-worker in any other major city in the United States. This is one of the interesting facts that has come out of the Census of Manufactures Report on Industry in Metropolitan Areas in 1947 (MC100-3).

The table below gives a comparison of the ten leading metropolitan areas in the number of establishments in 1947, the value-added-by-manufacture (total shipments less cost of materials and supplies), the average number of production workers, total wages and average annual earnings.

New York stands first and Chicago is second in number of establishments, value-added-by-manufacture, production workers and total wages. Detroit is third in all these categories, except number of establishments, where it ranks sixth.

In comparison with 1939, the date of former Census, Detroit has increased its production, as measured by value-added, from $1089.6 millions to $2910 millions, or 167%. This in comparison with a national percentage of increase of 203%.

This Preliminary Report from 53 standard metropolitan areas, having 40,000 or more manufacturing employees in 1947, covers Akron, Canton, Cincinnati, Cleveland, Columbus, Dayton, Toledo and Youngstown in Ohio; Detroit, Flint, Grand Rapids in Michigan; and Wheeling-Steubenville in West Virginia. It is available upon request at the nearest Field Office of the Department of Commerce.

MANUFACTURING IN 10 LARGEST METROPOLITAN AREAS — 1947

Area	Number Establishments	Average Number Production Workers	Total Wages (Add 000)	Average* Annual Earnings	Value-Added-by-Manufacture (Add 000)
DETROIT (1)	4,755	466,800	$ 1,454,700	$3,116	$ 2,910,000
CLEVELAND (2)	3,259	218,900	645,500	2,950	1,546,100
Chicago	12,278	753,100	2,173,500	2,874	5,524,900
Pittsburgh	2,225	284,000	808,200	2,845	1,711,300
Buffalo	1,693	149,800	425,300	2,840	1,023,200
Los Angeles	9,756	281,300	792,600	2,817	2,055,500
New York	48,287	1,266,600	3,489,600	2,754	9,319,700
Philadelphia	7,395	437,200	1,140,600	2,608	2,803,600
Boston	5,407	215,300	530,900	2,466	1,391,200
St. Louis	2,958	200,000	490,200	2,451	1,292,300
U. S. Total	240,801	11,918,000	30,248,000	2,538	74,364,000

* Derived from Census reports by dividing total wages paid by average number of production workers.
(1) Detroit metropolitan area consists of Macomb, Oakland and Wayne Counties
(2) Cleveland metropolitan area consists of Cuyahoga and Lake Counties

Excerpts from a release of the
Michigan Department of Economic Development

MICHIGAN MANUFACTURING IN 1947 COMPARED WITH 1939

The preliminary reports of the Census of Manufactures: 1947 now being released reveal many important facts about changes in Michigan's industrial pattern since the last census taken in 1939.

Outstanding among the Census data is Michigan's great gain in number of manufacturing establishments. The number rose from 5,961 in 1939 to 9,889 in 1947, an increase of 65.9 per cent. This is the largest percentage gain made by any major industrial state and places Michigan fifth among all states. The national increase over the same period was 38.5 per cent.

Michigan continues to maintain her position in fifth place among the 48 states both in number of total employees (973,000) and in number of production workers (821,200). The leading industry groups, based on employment, are transportation equipment, machinery-except electrical, primary metal industries, fabricated metal products, and food and kindred products.

In noting the industrial changes, an item of significance is value-added-by-manufacture or the amount by which value of shipments exceeds cost of materials and supplies. By this measure Michigan ranked fifth among all states in 1947 as in 1939, with a total of $5,186,500,000 in the more recent year. Michigan's percentage of the U. S. total in value-added-by-manufacture has declined from 7.3 per cent in 1939 to 6.9 per cent in 1947. Among the major industry groups, transportation equipment and machinery-except electrical, remain in first and second position, respectively, and fabricated metal products rose from sixth to third place. Several of the smaller industry groups such as instruments and related products and electrical machinery have made marked precentage increases. The unequal rise in value of various commodities over the period being considered necessitates caution in placing too great an emphasis on percentage changes in value-added-by-manufacture.

As information becomes available for individual industries in the major industry groups it will be possible to evaluate more accurately the trends of Michigan's industrial sources of income. Such data are now available for the state's best-known industry—motor vehicles and parts, which represents 97 per cent of the transportation equipment group. In this activity Michigan continues to lead the nation in total employees, production workers, salaries and wages, and value-added-by-manufacture, having more than 50 per cent of the U. S. total for each of these items.

No other important manufacturing state has such a dominance of employment in a single industry or even in a broader major industry group. Over 38 per cent of all Michigan employees in manufacturing are in the automotive industry. This situation provides strength and possible weakness to Michigan's industrial economy.

The state usually is considered as being largely a producer of durable goods, and transportation equipment commonly is considered among this group. The average use-span of passenger cars, however, is less than ten years while the period is much shorter for commercial vehicles. This suggests a new classification of hard, semi-durable consumer goods.

The widespread interdependence of other major industry groups in Michigan and nearby states on the manufacture of motor vehicles makes this activity a key figure in the economic health of the region and the nation. Because of the dominance of automobile manufacturing and related industries our economy reacts rapidly and widely to changes in consumer demand.